

Mix-City

Urban integration of an existing concrete mixing facility, Brussels, Belgium



Main authors

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Project data

Project group: Architecture, building and civil engineering
 Client: Inter-Beton
 Project background: Private commission
 Planned start: June 2018

Summary and appraisal of the project by the jury

Facing the challenge of losing its industrial and economic base and acknowledging the fact that newly developed urban neighborhoods were gradually encroaching on industrial facilities, the municipality of Brussels initiated studies of how best to address the question at hand. Case in point is the project to integrate an existing concrete mixing facility within what had become one of the city's most dynamic and culturally diverse areas. The project offers an alternative to standard contemporary approaches, suggesting to keep the mixing facility on site rather than relocating it to the city's edges, while adding a range of functions – both public spaces as well as privately funded work-spaces – to densify the site.

In addition to the project's overall strategy, the jury appreciated the range of architectural moves, which

give credence to the ambition to combine what at first sight might have seemed improbable, namely, the literal co-habitation of otherwise incompatible functions. The jury acknowledged in particular three specific measures: first, the introduction of a wall made of interlocking precast blocks produced from recycled concrete to encapsulate the facility from its surroundings; second the introduction of a canopy with public functions suspended over the work area to control sound and dust from the mixing process; and third, the establishment of an urban public connection from the city to the existing canal just below the canopy's cantilever. All in all, the jury applauded the project's underlying vision as well as the author's ability to transform an otherwise inauspicious industrial facility into a promising piece of architecture – part and parcel of Brussels's vibrant mix-city.

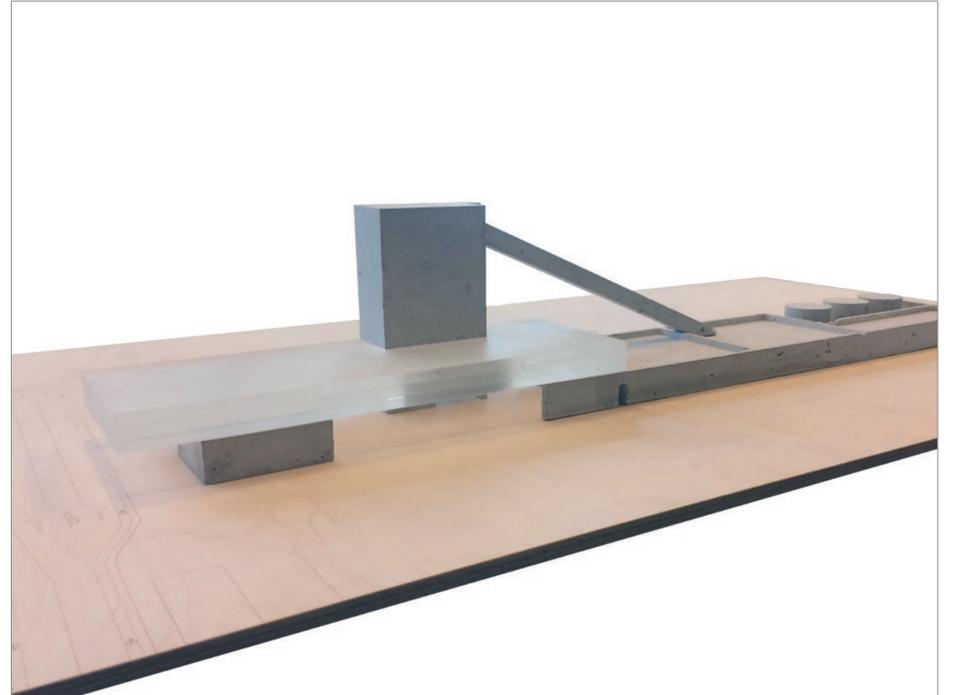


Image 1: Picture of the model. The canopy spans the work area and rests on a support base of dry interlocking precast concrete blocks made from recycled concrete waste. It hangs over on the left side, where the public function is situated. This public function is accessible through a spiral staircase to a public walkway at ground level (not shown in this picture). The outer right end of the canopy accommodates the Inter-Beton offices with overview. The canopy frames the mixing tower and converts it into a civic landmark.

Statements on the sustainability of the project by the authors

"A good city has industry"

Industry is a vital part of the rich economic and urban fabric of a vibrant city. In Brussels, the industrial infrastructure that is still prominent is a unique asset for the future. This infrastructure is now being revived into innovative manufacturing activities, low-skilled jobs and a circular economy. The Brussels Inter-Beton site is especially surrounded by an extremely mixed context: Up-site (highest residential tower in Belgium), the central administrations of the Flemish government and Brussels Environment, Tour and Taxis Park, etc. Besides the canopy with Inter-Beton admin functions hovering over the concrete mixing work area, we proposed to leverage public amenity by expanding public function with a central focal point suspended over public space. This will become a true symbol for the integration of industry and city.

Circular economy: turning daily concrete waste into building components

Today, a lot of money is earned through the city, but not always by and for the city. If we can organize manufacturing and logistics into shorter chains and closed cycles, the city will be more sustainable and a larger part of the value will remain in the city. Reconverting an inner city concrete mixing facility gives obvious benefits with regards to short supply chains of building materials. Returning trucks gather 20m³ of concrete waste every day. We propose to use this waste

for precast dry interlocking concrete blocks that will become the support base for the suspended canopy. Concrete and glass block façade infill panels can also be produced. More elaborate research will assess the feasibility of manufacturing precast pretensioned structural members on site with the concrete waste.

Urban livability: landmark public function

Urban livability is hard to define and should be historically, culturally and individually situated: how people relate to each other and their environment in complex ways. It is about ecology in its most basic sense, from the Greek word "oikos", meaning "home". Sustainability is not complete if not including this human aspect. In this project, the canopy prevents dust and sound from being emitted to neighboring residential and recreational areas. But it also aestheticizes a difficult industrial inner city site, and provides a much-needed suspended public function in the Canal Zone, visible from two important axes. What was first a challenge now becomes a landmark quality for urban livability and will become more and more a focal point of vibrant Brussels "mixity".

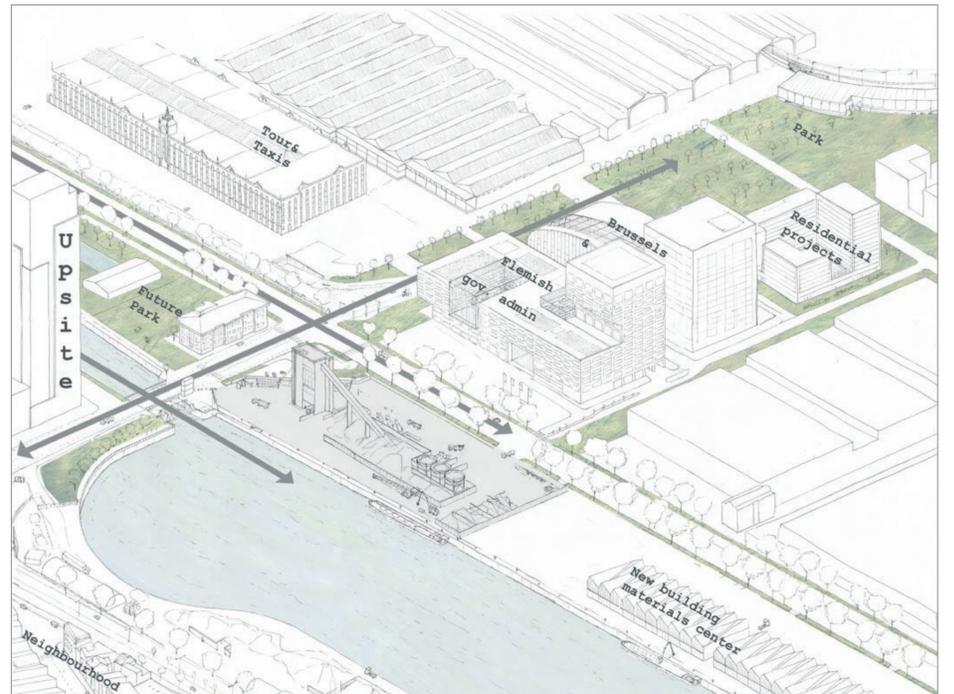


Image 2: Drawing of the existing situation. The Upsite tower, the offices for Brussels and Flemish administration, Tour & Taxis, the current and future parks, etc.: this is a diverse and vibrant zone in full development. The Inter-Beton site is on the intersection of two different axes, and can become a landmark, partly industry, partly accessible to all, contributing to a truly mixed Canal Zone for all to enjoy and use. In conclusion: "A good city has industry" – and everything else!



Image 3: View from crossing of two axes. The spiraling stairs gives access to the suspended public function.



Image 4: View from across the canal. The horizontal canopy frames the mixing tower.



Image 5: Offices of Inter-Beton have an overview of their industrial activities.

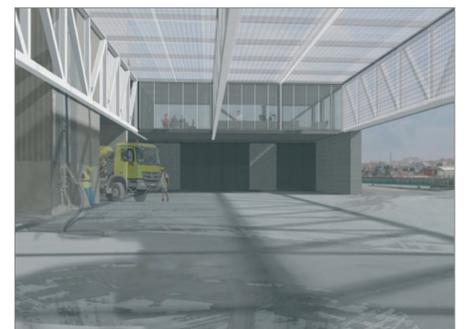


Image 6: View from work area. The canopy reduces dust and noise of the work area.



Image 7: Nighttime satellite view with artwork projected from mixing tower onto the canal.



Image 8: Axonometry showing a clean site organization and a landmark tower with canopy.

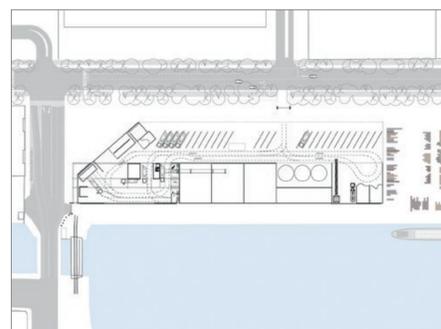


Image 9: Plan: A cleanup of the site provides clearer truck circulation, where the mixing tower becomes a roundabout.



Image 10: View from the Park of Tour & Taxis: the canopy protrudes and is visible at the end of the axis.